

CALIFORNIA OCEAN  
PROTECTION COUNCIL

Staff Recommendation  
January 13, 2006

**California Coastal and Marine Mapping Initiative**

Developed By: Marina Cazorla and Rebecca Pollock

**RECOMMENDED ACTION:** Consideration of the California Coastal and Marine Mapping Initiative project, involving data acquisition for near- and offshore substrate and marine habitat mapping, and possible 1) determination that it is a high priority project and 2) authorization for the Secretary to take actions needed to provide up to \$1,100,000 for its planning or implementation.

**OCEAN or COASTAL LOCATION:** Statewide

**AGENCY OR ENTITY RECOMMENDING PROJECT:** State Coastal Conservancy, California Resources Agency, Monterey Bay Sanctuary Foundation, National Marine Sanctuary Program

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**EXHIBITS**

Exhibit 1: California Marine Habitat Task Force Final Report, 2000 Strategic Planning Meeting

Exhibit 2: 2003 National Marine Sanctuary Seafloor Habitat Desktop Study

Exhibit 3: Letters of Support

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**RESOLUTION:**

“The Ocean Protection Council finds pursuant to Sections 35600, *et seq.* of the Public Resources Code that the California Coastal and Marine Mapping Initiative, as herein described, is of high priority for ocean conservation and authorizes the Secretary to take actions necessary for its planning or implementation, including the allocation of up to \$1,100,000 for the purposes of this project.”

**PROJECT DESCRIPTION:**

Staff recommends that the Ocean Protection Council (Council) authorize an initiative for mapping the state’s coastal seafloor. The proposed project anticipates a grant of \$1,100,000 to the Monterey Bay Sanctuary Foundation (MBSF) to undertake a collaborative data acquisition effort for the northern Central Coast. Data will be collected using various geo-referenced

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mapping technologies as appropriate, including side-scan sonar, multi-beam, and light detection and ranging (LiDAR). The collaborative effort will deliver processed data and map products for data users and resource managers.

### **Background**

The California Ocean Protection Act (SB1319) and subsequent adopted documents of the Ocean Protection Council emphasize that it is state policy to implement ecosystem-based approaches to manage coastal and marine resources using sound science. Implementation of ecosystem-based management (EBM) strategies requires consideration of interactions between species, their habitats, and human activities. Many of these interactions are not well understood, and significant data and information gaps hinder achievement of effective EBM. Statewide, California's resource managers and scientists must often make decisions based on a patchy picture of the habitats that lie offshore.

Accurate statewide mapping of seafloor substrate, marine habitat types, and bathymetry (underwater topography) of California's coastal and nearshore waters is a crucial component necessary to guide multiple ocean management decisions. Designating marine reserves, understanding sediment transport systems, locating shipping lanes, identifying dredging and dumping sites, regulation of offshore coastal development, and illuminating the dynamics of fisheries and other marine species, are just a few of the applications that would benefit from coastal and marine mapping data and products. Although small sections of the coast, including some adjacent federal waters, have been mapped to varying extents and resolutions, a comprehensive and seamless map of the state's near- and offshore benthic and marine resources does not currently exist.

### **Past Mapping Efforts at the State Level**

Previous mapping planning and prioritization efforts at the state level exemplify the importance and timeliness of a marine mapping initiative supported by the Ocean Protection Council. In 2000, the California Marine Habitat Task Force, led by the Department of Fish and Game and coordinated by the California State University Monterey Bay (CSUMB) Seafloor Mapping Lab, convened a workshop to share existing data and prioritize areas for mapping along the state's coast based on common needs of stakeholders (Exhibit 1). Additional mapping according to the Task Force's 2000 priorities has since been completed, but significant stretches of the coast remain unmapped.

Recently, members of the benthic habitat mapping community, including coastal and marine geologists, seafloor mapping experts, resource managers, and end users of the maps and data, held an initial meeting for a Consortium for Coastal Geologic and Benthic Habitat Mapping. The group's objectives are to organize a public forum on current mapping efforts, needs, and data gaps; to identify multi-institutional and multi-disciplinary mapping priorities and funding sources; to generate and publish geologic and habitat maps online; and to participate in the creation of data standards for data acquisition, analysis, and display. This group, coordinated by Guy Cochrane at the U.S. Geological Survey and Gary Green of Moss Landing Marine Laboratory, and other institutions across the state, identified the need to pursue a comprehensive, high quality, collaborative statewide mapping effort.

### **Leveraging Federal Funds**

In addition to this momentum to map the substrates and benthic habitats in state waters, three of the four California National Marine Sanctuaries (part of the National Oceanic and Atmospheric Administration's National Marine Sanctuary Program) recently identified benthic and seafloor mapping as a top priority in their Draft Management Plans. The Channel Islands National Marine Sanctuary (NMS), Cordell Bank NMS, and the Monterey Bay NMS, all of which have boundaries extending partially or wholly within state waters, specifically indicated that managing resources and protecting ecosystems required undersea habitat maps.

Mapping efforts have been conducted previously by the Sanctuaries. The Channel Islands NMS in conjunction with the U.S. Geological Survey has conducted ongoing seafloor surveys since 1997 to characterize benthic habitats in and around state and federal waters of the Sanctuary, and a third of this mapping is complete. As of 2003, small sonar mapping efforts were completed in the Gulf of the Farallones NMS and Cordell Bank NMS. These efforts were inventoried in the NMS's 2003 Seafloor Desktop Habitat Study (Exhibit 2).

NOAA's National Marine Sanctuary Program (NMSP) is acquiring a new research vessel in May 2006, which will be capable of data collection using multibeam or sidescan sonar equipment, Remotely Operated Vehicles (ROVs) and other mapping equipment. NMSP has committed to be a federal partner for this proposed marine mapping initiative, providing use of the new research vessel *Fulmar* for a significant amount of time during the upcoming field season, as well as staff and crew time. This is a major contribution and partnership for the proposed project, as vessel and equipment rental are among the most costly components of any marine mapping effort.

### **The California Coastal and Marine Mapping Workshop**

The California Coastal and Marine Mapping Workshop was held in December 2005, organized by California State University Monterey Bay's Seafloor Mapping Lab. The Coastal Conservancy funded this workshop using tidelands funds allocated for ocean protection purposes under the authority delegated to the Executive Officer at the Council's October 27, 2005 meeting. The objectives of the Workshop were to (1) update the state mapping priorities defined in 2000 by the California Marine Habitat Task Force based on existing data, data needs, and end-user applications; and (2) draft a strategic plan for statewide coastal and marine mapping that leverages resources of federal and state agencies, academia, and private sector interests.

The workshop convened major stakeholders, scientists, and end-users of mapping products, including academic institutions, management agencies, and other mapping data consumers. By involving these key participants, the resulting draft strategic plan is a transparent and inclusive document that integrates diverse application needs and leverages multiple funding and support sources for a coordinated effort.

The Workshop Preliminary Report and Marine Mapping Strategic Plan (Workshop Report and Plan) address the following issues:

- Prioritization of areas for new fieldwork and data acquisition efforts statewide, with special emphasis on the northern portion of the Central Coast;
- Collection, management, and storage of both existing and newly acquired data;

- Agreed-upon standards and protocols for data collection, post-processing, and interpretation of data;
- Selection of various mapping products appropriate for resource management applications (e.g., hard copy maps, interactive GIS-based online maps, etc.), and
- Dissemination of mapping data and information to end-users and the public.

One of the primary purposes of the Workshop Report and Plan is to ensure that Council, state and other funding sources for mapping will be used strategically and efficiently, and that mapping data interpretation and mapping products are useful and relevant to the greatest possible number of resource managers and end-users. A copy of the Workshop Report and Plan will be provided to the Ocean Protection Council at the January 13 meeting.

### **Applications of Marine Mapping Data and Products**

Coastal and fishery resource managers must frequently make decisions about development projects or uses of the coastal zone without sufficient knowledge of the marine habitat types that the proposed projects impact. Development projects, such as aquaculture, wind farms, pipeline and cable installations, construction of docks, piers, sewage outfalls, and discharge of pollutants (e.g. nutrients and heavy metals), can disrupt and degrade the habitat functions and values of the marine environment. Productive habitats for commercially and ecologically valuable species are located throughout the coastal zone and are potentially impacted by these activities.

Benthic habitat maps are a vital tool to allow managers to visualize the distribution, diversity and extent of marine communities under their jurisdiction. Recent advances in acoustic mapping systems, such as sidescan sonar and multibeam sonar, has made it possible to obtain high-resolution information about the seafloor, and has made benthic mapping feasible for large areas of the seafloor. Benthic habitat maps can be used to aid in siting and reviewing the environmental impacts of a wide variety of development projects on the seafloor. They can also be used as a planning tool to insure future protection efforts (fishery closures, marine protected areas, ocean use allocation) are habitat based and representative of all regional habitat types. Managers have a critical need to monitor the individual and cumulative impacts of human activity in the marine environment, which will be greatly facilitated when the spatial distribution of various benthic habitat types are known.

### **Implementation of the Mapping Initiative**

The proposed \$1.1 million grant to MBSF will fund the acquisition of new mapping data on the Central Coast through various collection techniques including side-scan sonar, multi-beam, and LiDAR, and serve up processed data and map products for end-user access.

Through a Request for Proposals, MBSF in cooperation with the National Marine Sanctuary Program will solicit collaborative, multi-institution proposals to collect, process, and interpret mapping data in the first target area, the exact location of which was determined during the December mapping workshop. The Request for Proposal will also require cash or in-kind matches or contributions from proposers, in order to maximize leverage of this effort.

### **The Monterey Bay Sanctuary Foundation**

The mission of the Monterey Bay Sanctuary Foundation (MBSF) is to advance the understanding and protection of the Monterey Bay National Marine Sanctuary and other coastal and ocean

resources in California. MBSF oversees the Sanctuary Integrated Monitoring Network (SIMoN) which monitors and reports on the health of the ocean ecosystem; promotes ocean conservation education for underserved communities; promotes water quality; supports Marine Protected Area efforts; and serves as fiscal sponsor for a variety of federal and state grants and contracts.

MBSF is experienced at managing large contracts and grants, and offers a reasonable overhead of 10 percent for administration. MBSF also has excellent knowledge of and familiarity with the staff of California marine sanctuaries and the state's scientific community. Lastly, MBSF's science panel for SIMoN provides a pre-existing resource of scientific expertise for review and assessment of proposals and respondents for the proposed mapping block grant.

## **PROJECT FINANCING**

### **Funding Sources:**

Ocean Protection Council (Coastal Conservancy)	\$1,100,000
Monterey Bay Marine Sanctuary In-Kind Contribution (est.)	\$550,000
<b>Total Project Cost</b>	<b>\$1,650,000</b>

Staff anticipates using \$1,100,000 of the Ocean Protection Council's Tidelands Oil funds appropriated to the Secretary of Resources in FY 04/05 for projects authorized pursuant to the Ocean Protection Act. The Resources Agency has entered into an interagency agreement with the Conservancy to administer these funds on behalf of the Council and recommend projects for funding. These funds are to be expended by the Conservancy in concert with the Council for programs and projects that the Council finds to be of high priority. If authorized by the Council, Conservancy staff will recommend a grant of \$1,100,000 to MBMS for consideration at the Conservancy's next public meeting on February 8, 2006.

In addition, an unknown but likely significant contribution of matching funds and/or in-kind resources will come from respondents to the MBSF's request for proposals from the state's scientific and academic institutions.

**CONSISTENCY WITH CALIFORNIA'S OCEAN ACTION STRATEGY:** The project is consistent with Action Item 10, which states California should "pursue, support, implement and establish long-term funding for coordinated ecosystem management approaches at the federal, state and local levels to guide and improve the stewardship of ocean and coastal resources." It is also consistent with Action Item 13, which states that the State should identify and prioritize issues that may benefit from additional coordination by the California Ocean Council, including issues arising in the context of protection of marine resources and economic uses of the ocean.

## **CONSISTENCY WITH OCEAN PROTECTION COUNCIL'S INTERIM PROJECT SELECTION CRITERIA & GUIDELINES:**

### **Mandatory Criteria**

#### **1. Furthers the following statutory purposes and policies of the Ocean Protection Act:**

- **Improves management, conservation, and protection of coastal waters and ocean ecosystems:** This project will provide essential data and mapping of coastal water and marine ecosystems, which will support management and conservation of these resources.

- **Improve monitoring, data gathering, and advances in scientific understanding of the ocean and coastal environment:** The main objective of this project is to acquire data needed for scientific research to manage and conserve the ocean and coastal environment.
  - **Improves the health of fish and fosters sustainable fisheries in ocean and coastal waters:** This project will support sustainable fisheries management by improving scientific understanding of the locations of different types of potential fish habitat so that fisheries can be managed or conserved more effectively.
  - **Helps to coordinate the collection and sharing of scientific data:** This project will benefit from and support coordination, collection, and sharing of scientific and mapping data by promoting multi-institutional scientific cooperation, protocol standardization, and sharing of scientific equipment. .
2. **Consistent with the purposes of the funding source:** See Project Financing Section above.
  3. **Has demonstrable support from the public:** This project has support from the Monterey Bay National Marine Sanctuary, the Gulf of the Farallones National Marine Sanctuary, and Cordell Bank National Marine Sanctuary. See Exhibit 3 for letters of support.
  4. **Relates directly to the ocean, coast, associated estuaries, and coastal-draining watersheds:** This project will promote ocean and coastal marine resource management and conservation by improving the quality and quantity of seafloor substrate and habitat mapping data.
  5. **Has greater-than-local interest:** This project will promote regional and statewide marine resource scientific research, conservation, and management by providing a model for future statewide mapping efforts.

#### **Additional Criteria**

**Helps implement the California Ocean and Coastal Information, Research, and Outreach Strategy (IRO):** This project will implement the “cross-cutting need” for seafloor mapping identified in the IRO. As such, the project will help to address multiple IRO recommendations related to scientific research, ocean observing, identification of federal support for California research needs, and improvement of access to and coordination of ocean and coastal information in California.

**The project would not occur without Council participation:** This project would not occur without Council funding and support because there is currently no statewide entity coordinating statewide mapping efforts, or with the resources to fund large mapping projects..

**The project helps resolve more than one issue:** This project will support scientific research, marine resource management, and regulation of coastal and offshore development.

**The project includes a contribution of funds or services by other entities:** This project includes a significant in-kind contribution of vessel time from the R/V Fulmar, a new NOAA research vessel dedicated to research in the northern California marine sanctuaries. Additional significant matching funds or in-kind services are expected from respondents to the competitive RFP process that the MBSF will oversee.

**The project is ready to implement (grantee or contractor will start and finish the project in a timely manner):** The Monterey Bay Sanctuary Foundation is ready to begin implementing the proposed project as soon as funds are available.

**The project involves a combination of local, state, or federal agencies or is a public/private partnership:** This project involves a significant partnership of California state agencies and NOAA's National Marine Sanctuary Program. Respondents to the proposed block grant are also expected to bring in other project partners.



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

### California Coastal National Monument

299 Foam Street

Monterey, California 93940

Telephone: (831) 372-6115



In Reply Refer To:  
8200 (P)  
CA-939

December 27, 2005

California Ocean Protection Council  
c/o State Coastal Conservancy  
Attention: Sam Schuchat, Executive Officer  
1330 Broadway, 11<sup>th</sup> Floor  
Oakland, CA 94612-2530

Dear Secretary Chrisman and Ocean Protection Council Members:

I recently participated in the Strategic Planning Workshop for California Marine Habitat Mapping sponsored by the Coastal Conservancy. The California Coastal National Monument is pleased to collaborate with the many partners and stewards involved in this work. The priorities identified at the workshop align well with the priorities identified in our recently completed California Coastal National Monument Resource Management Plan and provide the template for further joint efforts with our core-managing partners the California Departments of Fish and Game and the California Department of Parks and Recreation.

We support the proposal to fund mapping efforts in state waters in the Central Coast Study Region from Monterey Bay to Bodega Bay as developed at the workshop. The project meets the funding and selection criteria you have established and will provide vital information in the implementation of the California Ocean Protection Act.

The Monterey Bay Sanctuary Foundation has helped to facilitate some of our work and that of the National Marine Sanctuary Program. An integral component in our management, conservation, and protection of marine and coastal ecosystems is the development of good seafloor and habitat mapping information. The proposed project is an important initiative and will help to lay the foundation of information for better resource management decisions.

We look forward to working on this important undertaking.

Sincerely,

***/s/ Herrick E. Hanks***

Herrick E. Hanks  
Monument Manager





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
**NATIONAL OCEAN SERVICE**

**Monterey Bay National Marine Sanctuary**  
299 Foam Street  
Monterey, California 93940

January 3, 2006

Mike Chrisman, Chair  
California Ocean Protection Council  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Dear Chairman Chrisman and Ocean Protection Council Members:

The purpose of this letter is to indicate support of NOAA's National Marine Sanctuary Program (NMSP), in particular the Monterey Bay, Gulf of Farallones and Cordell Bank National Marine Sanctuaries, for the California Ocean Protection Council's (OPC) "California Coastal and Marine Mapping Initiative". High-quality map products and GIS layers depicting substrate type and marine habitats within the three northern/central California national marine sanctuaries is a priority for both the OPC and the NMSP.

The NMSP encourages the OPC to approve the \$1.2 million seafloor mapping grant to the Monterey Bay Sanctuary Foundation ("Foundation") at your January 13, 2006 meeting in Santa Barbara. We support the proposal that the Foundation oversee an RFP process for fieldwork to acquire new habitat mapping data in the northern/central coast area, using recommendations made from the OPC-funded marine habitat mapping workshop organized by CSUMB on December 12-13, 2005. The California national marine sanctuaries, not just the MBNMS, have worked closely with the Foundation for many years on important resource protection, science, outreach and enforcement projects. We have always found the Foundation's work to be highly professional, prompt, fair and cost effective. Indeed, the Packard Foundation and others have shown their trust in the Foundation as it has managed several million dollar grants to help study and better protect coastal resources in central California.

You may be aware the NMSP is readying a new \$2.9 million 67' catamaran research vessel, named the *Fulmar*, for use beginning summer of 2006. This vessel will be outfitted with state-of-the-art scientific instruments to support data collection efforts in the north/central California sanctuaries.

In support of the fieldwork required for the California Coastal and Marine Mapping Initiative, the NMSP with this letter extends the offer of use of the *Fulmar* for up to 30 days per year for the next two years, as an in-kind contribution to the mapping project within the priority areas identified by the workshop – from Moss Landing to Bodega Bay. The NMSP will cover all operational costs for the *Fulmar* during these field days. The costs of ship time can be a large component, and at times a barrier, to coastal and marine habitat mapping projects. Our offer allows more of the state funds go towards processing data.



If this partnership effort proves to be a success, and if additional funding is available to cover the costs of the acquisition and processing of seafloor mapping data, the NMSP is prepared to extend this offer of ship time to map other areas of California state waters which are Sanctuary priorities.

As fellow resource managers of the special state coastal and marine habitats in central and northern California, we in the National Marine Sanctuary Program are happy to join in this important new partnership. Having high quality seafloor and habitat maps for the northern half of the state waters in the Monterey Bay National Marine Sanctuary and nearly all of the state waters of the Gulf of the Farallones National Marine Sanctuary will greatly benefit our shared resource management responsibilities. Whether it be to plan for future Marine Life Protection Act processes, respond to future oil spills, identify shipwrecks, facilitate marine research or understand impacts from proposed future ocean uses, knowing the habitats of state waters and national marine sanctuaries is a critical step to meet our shared ecosystem management goals.

Thank you for all the work of the Ocean Protection Council and for your support for the California Coastal and Marine Mapping Initiative proposed by your staff.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. Douros', written in a cursive style.

WILLIAM J. DOUROS  
Acting Regional Superintendent  
National Marine Sanctuary Program

cc: David Bosco, Chair, California Coastal Conservancy

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200  
FAX (415) 904-5400



15 December 2005

Mike Chrisman, Chair  
California Ocean Protection Council  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Douglas Bosco, Chair  
California Coastal Conservancy  
1330 Broadway, 11th floor  
Oakland, CA 94110

Dear Mr. Bosco,

I am writing in support of the California Marine and Seafloor Mapping Initiative project that will be considered by the Ocean Protection Council on January 13, 2006 and the Conservancy on February 3, 2006.

California Coastal Commission staff believe that the acquisition and dissemination of high-quality seafloor substrate and habitat maps for all of state waters, including the proposed pilot study area in the northern central coast, will be very useful to resource managers and regulators. In particular the mapping data will be useful for assessing geologic and tsunami hazards, promoting conservation within marine protected areas, reviewing offshore development proposals, and other applications.

Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Douglas".

Peter Douglas  
Executive Director

**RECEIVED**

**DEC 22 2005**

**COASTAL CONSERVANCY  
OAKLAND, CALIF.**



IN REPLY REFER TO:

## United States Department of the Interior

### NATIONAL PARK SERVICE

Point Reyes National Seashore  
Point Reyes, California 94956

January 4, 2005

Mike Chrisman, Chair  
California Ocean Protection Council  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Douglas Bosco, Chair  
California State Coastal Conservancy  
1330 Broadway, 11th Floor  
Oakland, CA 94612-2530

Dear Secretary Chrisman, Mr. Bosco and Ocean Protection Council Members:

We strongly support the proposal to fund coastal mapping efforts in state waters through a grant to the Monterey Bay Sanctuary Foundation. The priority areas identified at the workshop in December, extending to Bodega Bay, have important benefits for the National Park Service. The project meets the funding and selection criteria you've established and will provide vital information in the implementation of the California Ocean Protection Act.

Point Reyes National Seashore encompasses approximately 80 miles of shoreline and more than 20,000 acres of coastal waters in this zone. Along with Golden Gate National Recreation Area, which includes another 40 miles of shoreline, the National Park Service is one of the largest land management agencies within the coastal zone of central California. The National Park Service has already invested substantial funding to initiate coastal mapping in this area and welcome the opportunity to continue this effort. Coastal mapping of nearshore areas is fundamental to knowing what resources occur there and to developing adaptive management strategies.

Because of the potential significance of MPAs for biodiversity conservation and fisheries management, we have been working with Moss Landing Marine Lab, local stakeholders, and UC Davis to collect and analyze seafloor habitat mapping data. We hope that this information will be used by stakeholder working groups designated by the MLPA while discussing potential MPAs along the Marin Coastline. We are also collaborating with the Mendocino Marine Life Conservancy, which represents coastal Sonoma and Mendocino Counties, to ensure that broad stakeholder input goes into potential MPA suggestions. Further funding for coastline mapping will fill this critical data need and allow stakeholder working groups and the science team to better design and implement effective MPA networks in the "North-central" region.

With our partners, we have already mapped the nearshore regions of the Pt. Reyes Headlands and nearshore for much of Drakes Bay, however, we have identified additional critical mapping areas that include nearshore Tomales Point, and the region from Duxbury Reef to the Golden Gate. We hope these areas are considered for future funding.

The Monterey Bay Sanctuary Foundation has the people and processes to facilitate the work. The proposed project is an important initiative and will help to lay the foundation of information for better resource management decisions.

We look forward to working together on these important initiatives.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Neubacher". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Don L. Neubacher  
Superintendent





DEPARTMENT OF FISH AND GAME

<http://www.dfg.ca.gov>

4665 Lampson Avenue, Ste. C

Los Alamitos, CA 90720

(562) 342-7108



January 11, 2006

Mr. Mike Chrisman  
Secretary for Resources  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Dear Secretary Chrisman:

We appreciate and thank you for your efforts and concern as Chair for the California Ocean Protection Council regarding the marine ecosystem.

This week in Santa Barbara the California Ocean Protection Council will act on a proposal to grant \$1.2 million for seafloor and habitat mapping in the Central Coast Study Region from Monterey Bay to Bodega Bay.

The Monterey Bay Sanctuary Foundation (MBSF) will serve as the facilitator of the project, in collaboration with a number of agencies. The National Marine Sanctuary Program is also offering a substantial amount of time and staff from their new research vessel, the Fulmar, to help conduct the mapping and ground-truthing.

The Department of Fish and Game (Department) would like to convey its support of this proposal and of the facilitation offered by the MBSF. The Department has a significant interest in the attainment of high-resolution mapping of the sea floor within all State waters for many reasons. The two primary reasons relate to the Marine Life Management Act (MLMA) and the Marine Life Protection Act (MLPA).

The MLMA requires an ecosystem-based approach to managing our fishery resources. We are improving our knowledge of the habitat associations of fished species and we are obtaining data on densities of populations of these species through various survey methods. A fine-scale data base of all mapped habitats within State waters will allow the Department to obtain much better abundance estimates for fished species and greatly improve our ability to manage them.

The MLPA requires a comprehensive monitoring and evaluation program for the package of proposed marine protected areas (MPAs) within the central coast which will ultimately be adopted by the Fish and Game Commission (Commission). A data base of fine-scale habitat maps within the new MPAs, as

well as within adjacent control areas, is critical to implementing an effective MPA monitoring and evaluation program.

The Department is managing a contract using funds from the Coastal Impact Assessment Program to assist in the implementation of the MLPA. This year we plan to encumber a significant portion of those funds to develop a contract for mapping new MPAs (and adjacent control areas) within the central coast region. The mapping will occur between Pt. Sur and Pt. Conception and will complement existing fine-scale habitat data between Moss Landing and Pt. Sur and the Ocean Protection Council's proposal for marine mapping habitat to the north.

Thank you for the considerable effort the Ocean Protection Council is making in improving the scope of knowledge of our marine ecosystems.

Sincerely

A handwritten signature in black ink, appearing to read "Gary B. Stacey". The signature is fluid and cursive, with a large, stylized "G" and "S".

Gary B. Stacey  
Regional Manager  
Marine Region





SCRIPPS INSTITUTION OF OCEANOGRAPHY  
DEPUTY DIRECTOR FOR RESEARCH, ASSOC. VICE CHANCELLOR-MARINE AFFAIRS  
DIRECTOR, UCSD CENTER FOR EARTH OBSERVATIONS & APPLICATIONS  
PRESIDENT, AMERICAN GEOPHYSICAL UNION

9500 GILMAN DRIVE  
LA JOLLA, CALIFORNIA 92093-0210  
TEL: (858) 534-2836  
FAX: (858) 453-0167

January 13, 2006

The Honorable Mike Chrisman, Chair  
California Ocean Protection Council  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Dear Mr. Chairman:

On behalf of Scripps Institution of Oceanography, I welcome this occasion to endorse both the priority and the approach of the California Coastal and Marine Mapping Initiative Project, Item 9.B. on today's Ocean Protection Council agenda.

The State Coastal Conservancy deserves recognition for its efforts to create a leveraged project based on a consensus of environmental and scientific needs. This is in keeping with the Council's objectives as stated in the Information, Research, and Outreach Strategy (IRO), adopted at your September 23, 2005 meeting, which Scripps was privileged to host. Specifically, the Council challenges all of us to help identify "the most critical ocean and coastal research needs for the State of California and pursue the most efficient and effective methods to increase research funding and data accessibility."

I am confident this project will go far towards demonstrating the merits of this policy, and will become a template for future collaborative endeavors among California's oceans research institutions, resource providers, and decision-makers.

Thank you for the opportunity to comment.

Sincerely,

John A. Orcutt

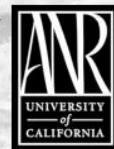




## UNIVERSITY of CALIFORNIA COOPERATIVE EXTENSION

Dr. Richard M. Starr  
Moss Landing Marine Laboratories  
8272 Moss Landing Road  
Moss Landing, CA 95039

Marine Advisor, Sea Grant Extension Program  
Monterey/Santa Cruz Counties  
Phone: (831) 771-4442  
Fax: (831) 632-4441



January 9, 2006

California Ocean Protection Council  
c/o State Coastal Conservancy  
Attention: Sam Schuchat, Executive Officer  
1330 Broadway, 11<sup>th</sup> Floor  
Oakland, CA 94612-2530

Dear California Ocean Protection Council Members:

I am writing in support of the California Marine and Seafloor Mapping project that you will consider in your January 13 Ocean Protection Council meeting. The collection and mapping of seafloor substrates and habitats is currently of great value for resource management. As a member of the Scientific Advisory Team to the Blue Ribbon Task Force on MPAs, I have found habitat maps to be some of the most important information we use to evaluate MPA proposals. In locations where substrate and habitat maps are lacking, we have a much higher uncertainty about the value of proposed MPAs.

Although much of the coast is in need of habitat mapping, the area from Monterey Bay to Bodega Bay was identified as a priority by participants of a recent habitat mapping workshop. Also, the project meets the funding and selection criteria you have established and will provide vital information in the implementation of the California Ocean Protection Act. I am confident the project will be of great value to the State of California's efforts to manage nearshore ocean resources.

Sincerely,

Dr. Richard M. Starr  
University of California  
Sea Grant Extension Program